IN THE CLAIMS

Please amend the claims as follows:

1.-2. (Canceled)

3. (Currently Amended) A printing material container ~~in accordance with claim 1~~ detachably attached to a printing apparatus having a clock signal line, a data signal line, and a reset signal line, said printing material container comprising:

a reservoir unit that keeps a printing material therein;

a clock terminal that receives a clock signal sent via the clock signal line of said printing apparatus;

a data terminal that transmits a data signal to and from the data signal line of said printing apparatus;

a reset terminal that receives a reset signal sent via the reset signal line of said printing apparatus;

a storage element having a plurality of non-volatile storage areas that are sequentially accessed; and

a storage element control unit that is initialized at a first level of the input reset signal and carries out a writing/reading operation of data into and from the storage element according to the data signal synchronously with the input clock signal when the reset signal is switched over to a second level,

wherein the storage element stores identification information therein, and the storage element control unit comprises:

a data bus that connects the data terminal with the storage element;

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an address counter that increments a count thereon synchronously with the clock

signal input via the clock terminal and resets the count to an initial value in response to input

of the reset signal via the reset terminal;

an input-output controller that is electrically connected with both the storage element

and the data bus and controls a direction of data transfer with regard to the storage element as

well as a direction of data transfer with regard to the data bus;

a comparator that compares printing material container identification information,

which is assigned to said printing material container for identification thereof and is input via

the data bus, with identification information stored in the storage element to determine

coincidence or incoincidence of the two pieces of identification information; and

a write/read enable unit that allows the writing/reading operation of data into and

from the storage element according to the data signal in the case of coincidence of the two

pieces of identification information.

4. (Original) A printing material container in accordance with claim 3, wherein the

input-output controller sets the direction of data transfer with regard to the storage element to

a reading direction and cuts off connection with the data bus as initial settings, in response to

input of the reset signal.

5. (Original) A printing material container in accordance with claim 4, said printing

material container further comprising:

a command decoder that connects with the data bus and the comparator, analyzes a

write/read command input via the data bus when a result of the determination by the

comparator represents coincidence of the printing material container identification

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information with the identification information stored in the storage element, and requires the

input-output controller to switch over the direction of data transfer with regard to the data bus

based on a result of the analysis,

wherein the input-output controller keeps the initial settings for the direction of data

transfer with regard to the storage element and the cutoff state of connection with the data bus

until the command decoder completes the analysis of the write/read command.

6. (Original) A printing material container in accordance with claim 5, said printing

material container further comprising:

a test terminal that connects with a test mode signal line; and

a test mode controller that connects with the test terminal and detects input of a test

mode signal,

wherein the storage element has a specific section between a head position and a

predetermined position of the storage area, the specific section being subjected to a writing

operation under a predetermined condition and otherwise storing the identification

information in an unrewritable manner, and the predetermined condition is detection of input

of the test mode signal.

7. (Original) A printing material container in accordance with claim 6, wherein the

test mode controller outputs a test mode command to the command decoder for analysis

thereof when detecting the input of the test mode signal, and prohibits increment of the count

on the address counter until the command decoder completes the analysis of the test mode

command,

the command decoder requires the input-output controller to carry out a writing

operation into the storage element and release of the data bus after the analysis of the test

mode command, and

the input-output controller carries out the writing operation into the storage element

and the release of the data bus in response to the requirement from the command decoder.

8. (Original) A printing material container in accordance with claim 6, wherein the

test mode controller outputs a test mode command to the command decoder for analysis

thereof when detecting the input of the test mode signal, and prohibits increment of the count

on the address counter until the command decoder completes the analysis of the test mode

command,

the command decoder requires the input-output controller to carry out a reading

operation from the storage element and release of the data bus after the analysis of the test

mode command, and

the input-output controller carries out the reading operation from the storage element

and the release of the data bus in response to the requirement from the command decoder.

9. (Original) A printing material container in accordance with claim 3, wherein the

storage element has a writable data area, in which data are writable, after a storage area of the

identification information.

10. (Original) A printing material container in accordance with claim 9, wherein data

regarding at least a quantity of the printing material is written into the writable data area.

11. (Original) A printing material container in accordance with claim 9, wherein the

storage element has a specific section between a head position and a predetermined position

of the storage area, the specific section being subjected to a writing operation under a

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predetermined condition and otherwise storing the identification information in an

unrewritable manner.

12.-18. (Canceled)

19. (Original) A plurality of printing material containers, each comprising a non-

volatile storage device that is mounted thereon and connects with a control unit via a bus with

a clock terminal, a data terminal, and a reset terminal, said control unit comprising a clock

signal generation circuit that generates a clock signal, a reset signal generation circuit that

generates a reset signal, an identification information output circuit that outputs identification

information to identify a desired printing material container among said plurality of printing

material containers, and a data output circuit that transmits a data array including the output

identification information and a write/read command to a data signal line synchronously with

the clock signal,

each of said printing material containers comprising:

a data bus that connects with the data terminal;

a storage element that stores a different piece of identification information assigned to

said each printing material container and has a storage area sequentially accessed;

a comparator that connects with the data bus and compares the identification

information output from said control unit with the identification information stored in the

storage element to determine coincidence or incoincidence of the two pieces of identification

information;

an input-output controller that is interposed between the storage element and the data

bus and controls a direction of data transfer with regard to the storage element as well as a

direction of data transfer with regard to the data bus; and

a command decoder that connects with the data bus and the comparator, analyzes the write/read command input via the data bus when a result of the determination by the comparator represents coincidence of the identification information output from said control unit with the identification information stored in the storage element, and requires the input-output controller to switch over the direction of data transfer with regard to the data bus based on a result of the analysis.

20. (Original) A plurality of printing material containers in accordance with claim 19, each of said printing material containers further comprising:

an address counter that increments a count thereon synchronously with the clock signal input via the clock terminal to specify a position in the storage area of the storage element to be accessed, and resets the count to an initial value at a time of initialization,

wherein the input-output controller sets the direction of data transfer with regard to the storage element to a reading direction and prohibits data transfer with regard to the data bus as initial settings, and maintains the initial settings until the command decoder completes the analysis of the write/read command.

21. (Original) A plurality of printing material containers in accordance with claim 19, wherein the comparators of the respective storage devices have common identification information common to all said storage devices.

22. (Original) A plurality of printing material containers in accordance with claim 19, wherein a power supply compensation circuit included in said control unit gives compensational power supply to each of said printing material containers for a predetermined

time period after cutoff of general power supply,

the reset signal is generated on at least either one of an occasion of starting power

supply to said control unit and an occasion of cutoff of the power supply,

in the case of detection of input of the reset signal during a writing operation of data,

transmission of the data to the data terminal is terminated immediately and preferential data is

instantly transmitted to the each data terminal one by one to be completely written in the

predetermined time period when the power supply compensation circuit gives the

compensational power supply.

23. (Original) A plurality of printing material containers in accordance with claim

19, wherein the clock signal input to the clock terminal has a longer cycle in the case of input

of a write command than a cycle in the case of output of a read command.

24. (Original) A plurality of printing material containers in accordance with claim

19, said plurality of printing material containers being mounted on a module substrate with a

printing material container detection signal line that is laid thereon to give cascade

connection with each printing material container and have one grounded end and the other

end connecting with said control unit,

wherein said control unit determines whether or not all said printing material

containers are properly mounted on the module substrate, based on a value of the printing

material container detection signal line.

25. (Original) A plurality of printing material containers in accordance with claim

24, wherein said control unit determines that all said printing material containers are mounted

properly on the module substrate when the printing material container detection signal line

shows a ground voltage.

26. (Original) A plurality of printing material containers in accordance with claim 24, wherein said control unit determines that at least one printing material container is not properly mounted on the module substrate when the printing material container detection signal line shows a voltage other than a ground voltage.

27. (Original) A plurality of printing material containers in accordance with claim 19, wherein the storage element stores a diversity of data regarding a type of the printing material accommodated in each printing material container.

28. (Original) A plurality of printing material containers in accordance with claim 19, wherein power supply to each printing material container is allowed only when said control unit carries out a writing/reading operation of data.

29.-37. (Canceled)

38. (Original) A printing material container detachably attached to a printing apparatus having a clock signal line, a data signal line, and a reset signal line, said printing material container comprising:

a reservoir unit that keeps a printing material therein;

a clock terminal connecting with the clock signal line of said printing apparatus via a bus;

a data terminal connecting with the data signal line of said printing apparatus via the bus;

a reset terminal connecting with the reset signal line of said printing apparatus via the bus;

a storage element that has a non-volatile storage area and is subjected to a

writing/reading operation based on a clock signal input via the clock terminal and a data

signal input and output via the data terminal;

a comparator that compares printing material container identification information,

which is included in the data signal and assigned to said printing material container for

identification thereof, with identification information stored in advance in the storage element

to determine coincidence or incoincidence of the two pieces of identification information; and

an input-output controller that allows the writing/reading operation into and from the

storage element when the comparator determines coincidence of the two pieces of

identification information.

39. (Original) A printing material container in accordance with claim 38, wherein the

identification information is stored in the storage element.

40. (Original) A printing material container in accordance with claim 38, wherein the

input-output controller allows the writing/reading operation into and from the storage element

only when a reset signal input via the reset terminal satisfies a predetermined condition.

41. (Original) A printing material container in accordance with claim 40, wherein the

storage element is sequentially accessed in synchronism with the clock signal.

42. (Original) A printing material container in accordance with claim 41, wherein the

storage element has information regarding a quantity of the printing material kept in said

printing material container, and the identification information is stored at a specific position

accessed prior to the information regarding the quantity of the printing material.

43. (Original) A printing material container in accordance with any one of claims 40

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to 42, wherein the predetermined condition is that the reset signal input via the reset terminal switches over a state thereof from a first level to a second level.

44.-49. (Canceled)

50. (Original) A storage system comprising a plurality of printing material containers and a control unit, each printing material container having a non-volatile storage device that connects with a clock signal line, a data signal line, and a reset signal line via a bus and a reservoir unit that keeps a printing material therein, said control unit connecting with said storage device included in said printing material container via the clock signal line, the data signal line, and the reset signal line

said control unit comprising:

a clock signal generation circuit that generates a clock signal;

a reset signal generation circuit that generates a reset signal for initializing said storage device;

an identification information output circuit that outputs identification information to identify a storage device included in a desired printing material container among said plurality of printing material containers; and

a data output circuit that transmits a data array including the output identification information and a write/read command to the data signal line synchronously with the clock signal,

said storage device included in said each printing material container comprising:

a data bus that connects with the data signal line;

a storage element that has a storage area sequentially accessed;

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a comparator that connects with the data bus and compares the identification

information output from said control unit with identification information stored in the storage

element to determine coincidence or incoincidence of the two pieces of identification

information;

an input-output controller that is interposed between the storage element and the data

bus and controls a direction of data transfer with regard to the storage element as well as a

direction of data transfer with regard to the data bus; and

a command decoder that connects with the data bus and the comparator, analyzes the

write/read command input via the data bus when a result of the determination by the

comparator represents coincidence of the identification information output from said control

unit with the identification information stored in the storage element, and requires the input-

output controller to switch over the direction of data transfer with regard to the data bus based

on a result of the analysis.

51. (Original) A storage system in accordance with claim 50, wherein said storage

device included in said each printing material container further comprises:

an address counter that increments a count thereon synchronously with the clock

signal input via the clock signal line to specify a position in the storage area of the storage

element to be accessed, and resets the count to an initial value at a time of initialization,

wherein the input-output controller sets the direction of data transfer with regard to

the storage element to a reading direction and prohibits data transfer with regard to the data

bus as initial settings, and maintains the initial settings until the command decoder completes

the analysis of the write/read command.

52. (Original) A storage system in accordance with claim 50, wherein said control

unit causes the reset signal generation circuit to output the reset signal to the reset signal line,

and

said control unit causes the data output circuit to transmit the data array including the

identification information, which is assigned to said storage device included in said desired

printing material container to be accessed, and the write/read command to the data signal line

synchronously with the clock signal, so as to gain access to said storage device in said desired

printing material container.

53. (Original) A storage system in accordance with claim 52, wherein said storage

device included in each said printing material container causes the address counter to reset

the count thereon to the initial value in response to detection of the reset signal,

said storage device causes the comparator to compare the identification information

transmitted to the data bus with the identification information stored in the storage element to

determine coincidence or incoincidence of the two pieces of identification information, and

when the result of the determination by the comparator represents coincidence of the

identification information transmitted to the data bus with the identification information

stored in the storage element, said storage device causes the command decoder to analyze the

write/read command transmitted to the data bus, controls the data transfer with regard to the

data bus and the data transfer with regard to the storage element based on the result of the

analysis, and carries out either one of an operation of writing data at a desired position in the

storage element and an operation of reading data from the storage element.

54. (Original) A storage system in accordance with claim 53, wherein the

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identification information output circuit of said control unit outputs common identification

information common to all said storage devices, and

the comparator of each storage device stores the common identification information

therein.

55. (Original) A storage system in accordance with any one of claims 50 to 54,

wherein said control unit further comprises a power supply compensation circuit that gives

compensational power supply for a predetermined time period after cutoff of general power

supply,

the reset signal generation circuit included in said control unit generates the reset

signal on at least either one of an occasion of starting power supply to said control unit and an

occasion of cutoff of the power supply, and

in response to detection of the reset signal during a writing operation of data, the data

output circuit included in said control unit immediately terminates transmission of the data

and instantly transmits preferential data to be completely written in the predetermined time

period when the power supply compensation circuit gives the compensational power supply.

56. (Previously Presented) A storage system in accordance with any one of claims 50

to 54, wherein the clock signal generation circuit included in said control unit lengthens a

cycle of the clock signal in the case of output of a write command via the data output circuit

than a cycle in the case of output of a read command.

57. (Previously Presented) A storage system in accordance with any one of claims 50

to 54, said storage system further comprising:

a module substrate that has said plurality of storage devices mounted thereon and a

storage device detection signal line laid thereon to give cascade connection with each storage

device and have one grounded end and the other end connecting with said control unit,

wherein said control unit further comprises a storage device detection circuit that

determines whether or not all said storage devices are properly mounted on the module

substrate, based on a value of the storage device detection signal line.

58. (Original) A storage system in accordance with claim 57, wherein the storage

device detection circuit included in said control unit determines that all said storage devices

are mounted properly on the module substrate when the storage device detection signal line

shows a ground voltage.

59. (Original) A storage system in accordance with claim 57, wherein the storage

device detection circuit included in said control unit determines that at least one storage

device is not properly mounted on the module substrate when the storage device detection

signal line shows a voltage other than a ground voltage.

60. (Previously Presented) A storage system in accordance with any one of claims 50

to 54, wherein said storage device stores a diversity of data regarding a type of the printing

material accommodated in said each printing material container.

61. (Previously Presented) A storage system in accordance with any one of claims 50

to 54, wherein power supply to each storage device is allowed only when said control unit

carries out a writing/reading operation of data into and from said storage device.

62. (Original) A storage system in accordance with claim 50, wherein the storage

element included in said each storage device has a specific section between a head position

and a predetermined position of the storage area, the specific section being subjected to a

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writing operation under a predetermined condition and otherwise storing the identification

information in an unrewritable manner.

63. (Original) A storage system in accordance with claim 50, wherein the clock

signal line, the data signal line, and the reset signal line are included in a flexible cable.

64. (Canceled)

65. (Original) A method of processing an access requirement in a storage device

attached to a printing material container, said printing material container having a storage

device that includes a storage element, which has a storage area sequentially accessed and a

specific section between a head position and a predetermined position of the storage area to

store identification information therein, said storage device sharing a clock bus that is

connected to a clock signal line, a data bus that is connected to a data signal line, and a reset

bus that is connected to a reset signal line with a storage device included in another printing

material container,

said method comprising the steps of:

resetting a count on an address counter to an initial value in response to detection of a

reset signal on the reset bus;

comparing identification information transmitted to the data bus with the

identification information stored in the storage element to determine coincidence or

incoincidence of the two pieces of identification information;

when the result of the determination represents coincidence of the identification

information transmitted to the data bus with the identification information stored in the

storage element, analyzing a write/read command transmitted to the data bus;

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controlling data transfer with regard to the data bus and data transfer with regard to

the storage element based on the result of the analysis; and

carrying out either one of an operation of writing data at a desired position in the

storage element and an operation of reading data from the storage element, based on the

count on the address counter.

66.-67. (Canceled)

68. (Original) In a printing material container having a non-volatile storage device,

which includes a storage element sequentially accessed, a method of storing identification

information in a specific section located between a head position and a predetermined

position of a storage area in the storage element,

said method comprising the steps of:

carrying out retrieval to find a piece of identification information that coincides with

the identification information stored in the storage element of said storage device;

when the piece of identification information that coincides with the identification

information stored in the storage element is found, transmitting the piece of identification

information and a write command to said storage device;

transmitting a data array to said storage device, the data array including the

identification information after data corresponding to an end position of the storage area in

the storage element of said storage device; and

writing data up to the end position of the storage area in the storage element and

subsequently writing the identification information from the head position to the

predetermined position of the storage area in the storage element, according to a count on an

address counter.

69. (Currently Amended) A method in accordance with any one of claims 65 [[to]] and 68, said method being applied to a set of at least two printing material containers, each having said storage device that stores a different piece of identification information.

70.-76. (Canceled)